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Learning Alumni Management from the Top Ten Ranking Universities in NIRF-2019 and its Application in Developing a Custom Social Network for Management of Alumni of a Department of Library and Information Science

By

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Abstract

Purpose: To study the alumni network and its features of the top ten ranking universities in NIRF-2019 and based on it to design and develop a custom social network for management of alumni of a department or university which are span across the Globe.

Methodology: Top ten universities in the NIRF-2019 ranking were thoroughly studied to know the basic features they provide in their alumni site and later on a suitable custom social networking platform were selected to host the alumni network of a university in India that has those basic features in some form.

Findings: There are a wide varieties of software available to manage the alumni data, some of which are directly marketed as alumni management software and easy to understand by all kind of people whereas some others are marketed as custom social networking platform or under other terminologies and sometimes even have more usable features than that of software specifically categorized as alumni management software.

Research Limitation: The study only covers the top ten NIRF-2019 ranking universities to find out the basic features of an alumni site. However, there may be some lower ranking institutes that even can have more usable features in their alumni site.

Practical Implication: The findings of the research can be useful in tracing the basic features of an alumni site and identification of different kinds of software to host such alumni site.

Originality: This study is expected to help the people responsible for the design and development of the alumni site and in fine tuning their software to meet the need of their institute and alumni.

Keywords: Alumni Management Software, Alumni Data Management, Alumni Data, Alma Mater, Social Network, Custom Social Network.

Paper Type: Descriptive

Highlights

- There are no consistencies in terms of platforms and softwares used to manage the alumni data by the top ten ranking universities in NIRF-2019. However, all these have some basic feature in common.
- The feature-rich alumni site of five out of ten universities of the top ten ranking universities in NIRF-2019 able to attract a large number of alumni to its coverage.
- The study highlights the basic features that need to be present in an alumni website.
- A custom social network can be used to effectively manage the alumni data of an institute.

1. Introduction: A social network means a dedicated website or other internet based online application which enables social interactions, connection and personal relationships by providing interfaces to communicate with others who share similar background, personal or professional interest and or activities by posting information, images, etc. Social networking

are for the social purposes, business purposes or both. Some examples of general social networking sites are Facebook (<https://www.facebook.com>), Twitter (<https://twitter.com>) and LinkedIn (<https://www.linkedin.com>).

An academic social network is a platform where an academician can develop connection with other academician and share information and knowledge of academic interest among themselves. It is the platform where the academicians make themselves more visible to others and disseminate their information, knowledge and publication. Some examples of academic social networking sites are ResearchGate (<https://www.researchgate.net>), Academia (<https://www.academia.edu>) and Mendely (<https://www.mendeley.com>). Again, a custom social network is a social networking platform that can be customized to meet the need of a specific interest or group for example a group of alumni, lawyers of a particular region and doctors of a specific specialization and so on by keeping all the basic features of a social network i.e. profile, chat, uploading of photo, video, be friended with others and so on features intake.

2. Literature Search: There are a very less number of articles published in the domain of management of alumni by custom social network in comparison to other field of study. A few literatures on broad topic are scanned and chronologically outlined below.

Chen and Yeh (2014) in their article on integrating Facebook and alumni into the social network mobile platform proposes a mobile platform integrating the public social network site, Facebook and universities' alumni.

Barman (30th August, 2015) in his article *Library and Information Science Links (LIS Links): India's Social Networking Platform for Library and Information Science Professionals* share his experiences in making a brand new academic social networking site for the Library and Information Science professionals by taking Ning platform as its base.

Barman (October 2017) in the article Usability, Satisfaction and Future Expectations from LIS Links Social Network found that there are some people who used academic social networking sites even though they are not the member of a general purpose social networking site like Facebook.

Ashline (2017) opined that the alumni network should go beyond a database compiling facts about graduate to form a collaborative relationship in between students, faculty and alumni and be a centre of inspiration, platform to support lifelong learning.

Mukherjee, Roy, Lath, Ghosal and Sengupta (2019) proposed a Centralized Alumni Management System (CAMS) for alumni management which is institution independent and concentrates on alumni network pan organizations.

3. Availability of Alumni Link in the Website of Top Ten Ranking Universities in NIRF-2019: National Institutional Ranking Framework (NIRF) is a methodology to rank institutions of higher education in India which was launched on 29th September, 2015 and adopted by the Ministry of Human Resource Development (MHRD), Government of India. The Framework uses several parameters for ranking purposes which were grouped into five clusters and these clusters were assigned certain weightages. The parameters broadly cover "Teaching, Learning and Resources"; "Research and Professional Practices"; "Graduation Outcomes"; "Outreach and Inclusivity"; and "Perception". Under the cluster of "Graduation Outcomes" proper management of alumni data and its wide availability can help the institute in collecting the data regarding "Combined % for Placement, Higher Studies, and Entrepreneurship (GPHE)"; calculation of "Median Salary"; "Metric for Graduating Students Admitted Into Top Universities (GTOP)" and such other parameters.

The website of the top ten universities in the NIRF-2019 ranking was visited and their Home page, Sitemaps and then A-Z list were consulted carefully for the link to the "Alumni"

page/site of the institute. From the study, it was found that out of the 10 universities, 7 universities has mentioned the alumni details in their Home page or Sitemaps or A-Z list and only 3 universities don't have any information regarding alumni in their website.

Top Ten Universities in the NIRF-2019	Ranking Score Obtained in the NIRF-2019	Rank of the University in the NIRF-2019	Availability of Alumni Link in the Home Page or Sitemaps or A-Z List of the University Website	
			Home Page	Availability of Alumni Link
Indian Institute of Science	82.28	1	https://www.iisc.ac.in	Available
Jawaharlal Nehru University	68.68	2	https://www.jnu.ac.in	Available
Banaras Hindu University	64.55	3	http://www.bhu.ac.in	Available
University of Hyderabad	61.85	4	https://www.uohyd.ac.in	Available
Calcutta University	60.87	5	https://www.caluniv.ac.in	Not Available
Jadavpur University	60.53	6	http://www.jaduniv.edu.in	Not Available
Anna University	60.35	7	https://www.annauniv.edu	Available
Amrita Vishwa Vidyapeetham	59.22	8	https://www.amrita.edu	Not Available
Manipal Academy of Higher Education	58.50	9	https://manipal.edu	Available
Savitribai Phule Pune University	58.40	10	http://www.unipune.ac.in	Available

Table 1: Top Ten Universities in NIRF-2019 and their Availability of Alumni Link in the Home Page or Sitemaps or A-Z List of the University Website (Accessed on 7th June, 2019)

4. Software Used to Manage Alumni Data by the Top Ten NIRF-2019 Universities: The website of the alumni of the top 10 universities in the NIRF-2010 ranking were collected from the respective institutional Home Page or Sitemaps or A-Z list. In the event of availability of the link to alumni page/site from multiple pages i.e. Home Page, Sitemaps and A-Z list; they were mentioned in the preference order of Home Page then Sitemap and then A-Z list. As most of the universities has more than one site to manage their alumni data from a specified geographic location (sometimes also called as chapter) or department of the institute, so, to make the study a comprehensive one, a new search was initiated through Google for the keywords <Full Name of the Institute Alumni> for example <Indian Institute

of Science Alumni> (without the triangular bracket) and the top ten results were consulted to have a list of all popular alumni sites of the university. Later on, all these sites were consulted by going through its footer and / or its source code to know the software they are using in managing the alumni data. It was found from the study that out of the total of 20 alumni sites, different versions of WordPress software are used by 4 sites, Almbase.com, Vaave.com and PDF form is used by two sites each and Fourthambit.com, Payumoney.com, 100pins.com and Google form is used by one site each. Six sites were designed and developed by using in-house software packages or using computer programming language instead of using any read-made software packages developed for that purpose by different companies.

Top Ten Universities in NIRF-2019	Source of the Alumni Link	Website of the Alumni	Software Used to Manage Alumni Data
Indian Institute of Science	Home Page	https://www.alumni.iisc.ac.in	Almbase.com
	Home Page	http://www.iiscalumni.com	WordPress 4.9.10
	Home Page	http://www.oodaa.iisc.ac.in	WordPress 4.8.1
	Home Page	http://www.iiscaana.org	WordPress 5.0.3
Jawaharlal Nehru University	Sitemap	https://docs.google.com/forms/d/e/1FAIpQLSeyMZE2NhYcOb3v2loiqiF89e-agEcOiCJMJK3t3ve6LzRJg/viewform	Google Form
Banaras Hindu University	Home Page	http://www.bhu.ac.in/alumni	PDF Form
University of Hyderabad	Home Page	https://www.uohyd.ac.in/index.php/about-uoh/alumni	100pins.com
Calcutta University	Google Search	http://www.calunivalumni.org	Not Available
Jadavpur University	Google Search	http://www.hqalumniju.org.in/	PDF Form
	Google Search	https://www.jueca.us	Vaave.com
	Google Search	https://www.jualumnidelhi.org	Payumoney.com
Anna University	Home Page	https://www.aaceg.org	WordPress 4.8.9
	Home Page	https://www.sapaa.org.in	Vaave.com
	Home Page	http://actchemicalumni.com	Not Available
Amrita Vishwa Vidyapeetham	Google Search	https://www.amrita.edu/amritians/alumni	Not Available
Manipal Academy of Higher Education	Home Page	https://manipalalumni.manipal.edu	Fourthambit.com
	Google Search	https://mujalumni.in	Not Available
Savitribai Phule Pune University	Sitemap	http://www.unipune.ernet.in/NewAlumni	Not Available
	A-Z List	http://www.unipune.ac.in/alumni/	Not Available
	Google Search	https://alumni.pumba.in	Almbase.com

Table 2: Top Ten Universities in NIRF-2019 and their Alumni Site and Software Used to Manage Alumni

5. Basic Features of an Alumni Website: The website of the alumni sites / associations of the top ten NIRF-2019 ranking universities were consulted to list out the basic features that were present in their alumni websites and later on these were enriched with the data and/or information available from the website of the software which were used to develop such alumni site. All these information later on categorized under some descriptive heading. The basic features of an alumni site thus obtained are outline below-

a) Members' Management: Scope for customize members online application form to capture data, data validation in the online application form including validation of Email / Mobile No. by sending auto verification link, one time password (OTP), updating the data in the online form as and when required by the members himself/herself. Sign In / Sign Up provision to the website by using Google / Facebook / Twitter / LinkedIn authentication. Scope for searching (by name, designation, department and so on) and browsing the members of the website or to plot it in the Google map. Members' profile page, scope for exporting the members' data in CSV or MS Excel and to use it to generate printed members directories, export to the contact list of Mobile phone or for easy generation of WhatsApp group. In case of approval of the membership to the alumni site scope for automatic Email to the approved members. Scope for members' categorization (like alumni of a particular department) and so on.

b) Members' Voice: Scope for posting article or blog post by registered members and commenting by others, discussing something in a threaded-style forum, posting of event (seminar / conference / workshop / training, networking events, picnic, etc.), photo and video by the members and scope for comment or liking or joining or participation by other members of the alumni site.

c) Members' Communication: Communication among the registered members via real time one-to-one chat or group chat, scrap message, comment, Emailing, be friend, inviting other non-members to join the website via system generated Email / SMS and so on. Scope for mentoring and guidance by the experienced alumni to the new alumni, display of upcoming birthday of registered members to boost communication. Scope to receive alert Email in case of getting comments or liking in the profile, forum, blog, group and so on by other members of the site.

d) Members' Motivation: Scope for automatic members ranking based on their contribution towards the website or to award them with different badges or to select them to formally felicitate or award them.

e) Fund Raising: Scope for online payment of membership fees via Paypal or payment gateway, annual fees, collection of donation for sponsoring an economically poor student, promising research project or to raise money in the event of financial hardship in medical treatment of any alumni, to fund an endowment lecture or to fund an award of the department or the institute.

f) Moderation of the Content: Scope for approval of membership to the alumni site, rejection, deletion or marking as spammer. Scope for moderation of the content including forum, blog, article, group, photo or video before its appearance over the website.

g) Micro Communities: Within the main alumni website, scope for creation of micro communities or group for the alumni of a particular school, department or programme or for a specific chapter by the member or administrator of the website with the provision of joining by already registered members with a single click. Each micro community may have its own administrator, pages, discussion forum or blog, mailing list, criteria for joining, members' moderation, commenting and such other features.

h) RSS: The scope for generating RSS to provide Current Awareness Service (CAS), Selective Dissemination of Information (SDI) service to the members by way of automatic

(system generated) Email by pulling contents from some specific categories of the network and also with scope for bringing outside content through RSS to the network.

i) Integration of Other Social Networking Website: Integration of Facebook, Twitter or other social networking websites so that the content from the alumni network automatically appear in the Facebook Page or Twitter Profile of the alumni site or vice-versa.

j) Broadcast Message: Scope for keeping abreast the members or sending upcoming news and announcements or about recent development in the alumni website through Email or Digest Email to all the registered alumni of the site in a single go whether it is a thousand members' site or a lakhs of members' site or to send Email to a certain group of alumni that meets a specific criterion or specific designation or department or residing in a specific country or state. Scope for sending job notification to unemployed alumni.

k) Collection of Statistics: Exporting all the registered members' data in MS Excel or CSV file that at least include Name, Mobile No., Email Id, Address, Department and such other information, collection of usage statistics of the website by using Google Analytics and / or such others platform.

l) Meeting Others Website Standard: Scope for creation of static pages like about us, reporting issues, log in problem, contact form or providing feedback to the administrator by the members of the site. Scope for inclusion of eligibility criteria to join the website, membership fees, committee details, customized terms of service for the website, log in IP monitoring facility, site archiving facility and all other standard guidelines that need to be followed in design and development of a website like automatic generation of Sitemaps, mobile version of the website, filling DMCA notice and so on.

6. Suitable Software to Host Alumni Website: In case of top 10 ranking universities in the NIRF-2019, out of the 20 alumni site, 6 sites are using their in-house develop software packages. In case of software packages developed in-house, likely to consume much of the budget and time from the staff in the form of constant evaluation and modification to the software packages to become stable. Again, the sites developed in-house likely to have minimum of interactivity in comparison to the products released by the large software companies especially for that purpose. So, it can be said that the software they developed in-house are not suitable for the large alumni website that they target to manage. Again, WordPress site is mainly used for blogging purpose and cannot have the interactivity needed for a full fledged alumni site. The same is true to PDF form, Google form and the form from Payumoney.com. They can only be used to collect some data and cannot be extended to provide other facilities needed for an interactive alumni site. The 100pins.com website is used to pin the favourite local places, and see others from the same place, so even it is not suitable for an alumni site. Whereas as, Almbase.com [used by Indian Institute of Science and Savitribai Phule Pune University), Vaave.com (used by Jadavpur University and Anna University) and Fourthambit.com (used by Manipal Academy of Higher Education) can be used to design and develop a full-fledged alumni site. All these software has almost similar features needed to develop a fully-featured alumni site. However, in choosing a proper software package to host an alumni site one has to see the company's past record and how much it is fruitful as a company. Otherwise, one may host an alumni site by choosing software that likely to cease its operation the next year.

To find out some of the successful alumni management software, the researcher has gone through the listing provided by Sourceforge.net and Capterra along with a list prepared by hundreds of authors over a collaboratively managed Google Sheet to which the author has also access to. In the next step, all the websites address of the software were visited to know whether they really provide a platform to develop an alumni site or custom social networking website or not and if they provide such kind of services then their Global Alexa rank are

obtained by consulting the Alexa toolbar extension of Chrome. The platform that provide the facility for developing custom social networking sites by users and if it has a Global Alexa Rank below 1,000,000 then only it is considered for listing.

Out of the Sourceforge.net (2019) listing of 64 alumni management software packages, Capterra's listing of 39 software packages and the collaborately managed Google Sheet's 48 entries, 33 software were found through which alumni data can be manage and have a Global Alexa rank of 9,99,999 or below and it simply means that they able to catch the market in a wider scale or popular in their area. Alexa is a tool that provides web analytics data and was established in 1996. The data are collected from the toolbar installed throughout the world by the users as part of their internet browsers or directly from the websites that have chosen to install the Alexa script on their site and certify their metrics. The estimated average of daily unique visitors, its estimated number of pageviews over the past 3 months, number of the sites linked to the website, average load time of the website and such other data were the basis to provide the website's Global Alxa rank, the rank in the particular country from which the website primarily accessed. The Alexa used to provide a near real picture of the popularity of the website.

The software companies that have multiple software packages to suite different needs instead of one exclusive package to manage alumni are omitted from this study as they likely to mislead the Global Alexa rank with the help of the other software products which are popular in their own domain. Further, in preparing the lists, only English language sites are considered as it becomes a very tough job for the researcher to find out the features available in the platform whose language is not known. In the newly listed software to manage alumni data the Almbase.com used by Indian Institute of Science and Savitribai Phule Pune University were dropped due to its low Global Alexa rank. After getting a list of popular alumni site, the researcher has again gone through the Alexa Similar Sites list for all 33 sites to find out some other popular alumni management software that might be excluded by Capterra, Sourceforge.net and the collaborately mange Google Sheet but produced no mentionable result.

Name of the Software	Website Address	Global Alexa Rank
Tapatalk	https://www.tapatalk.com	4,484
Ning	http://www.ning.com	6,145
Webs	http://www.webs.com	7,047
Enjin	https://www.enjin.com	10,353
phpBB	https://www.phpbb.com	55,459
Wild Apricot	https://www.wildapricot.com	64,347
BuddyPress	https://buddypress.org	78,617
Vanilla	https://vanillaforums.com	98,382
muut	https://muut.com	115,338
AlmaConnect	https://www.almaconnect.com	130,794
Flarum	http://flarum.org	147,127
Mobilize	https://mobilize.io	154,101
BOONEX	https://www.boonex.com	157,076
Spruz	http://www.spruz.com	165,425
JomSocial	http://www.jomsocial.com	197,058
SocialEngine	https://www.socialengine.com	209,325
Oxwall	https://www.oxwall.com	217,140
Joomlapolis	http://www.joomlapolis.com	218,688

Elgg	https://elgg.org	227,208
memberplanet	https://www.memberplanet.com	227,227
JoinDiaspora	https://joindiaspora.com	268,712
b2bevolution	http://b2evolution.net	288,376
HiveBrite	https://hivebrite.com	307,150
LegFi	https://www.legfi.com	354,843
Groupsite.com	http://www.groupsite.com	395,711
EverTrue	https://www.evertrue.com	400,487
Disciple	https://www.disciplemedia.com	405,143
Member365	https://www.member365.com	412,650
AlmaShines	https://www.almashines.com	553,961
GROU.PS	http://grou.ps	572,995
Jamroom	https://www.jamroom.net	605,307
Fourthambit.com	https://fourthambit.com	859,605
Vaave.com	https://www.vaave.com	952,297

Table 3: List of Popular Alumni Management Software

7. Problem Faced by Higher Educational Institutes in Managing Alumni: Following are some of the problem faced by the higher educational institutes for which there is need to look into better solutions in this regard.

a) Multiple Contact List in Physical Form with Outdated Information: Almost all the departments of a higher educational institute, different centres along with different associations like Students' Union, Research Scholars' Association, Workmen's Union Officers' Association, Teachers' Association, Pensioners' Association, Alumni Association and such other maintained their members' data in some kind of physical format which are outdated with time in terms of mobile numbers and contact details as there is no scope for user friendly updating of the same. In most cases, a single person is a member of more than one entity and it creates a problem to develop a unique database of all the stakeholders of an institute.

b) Slow Flow of Printed Information: The printed information which is distributed to the stakeholders from the administrative end of associations / organization sometimes becomes outdated as it reaches to the hands of the members. Again, the paper based information which is used to disseminate different kind of invitation, brochure by different departments or association of a higher educational institute are costlier in comparison to dissemination of the same information in digital form and it is environment unfriendly.

c) Working in Isolated Environment: Almost all the departments are working independently without knowing much about each other's strength and best practices. There is a need to have a dialogue between them in a format that can be preserved through time for the future generation.

d) Information is widely Distributed and Hard to Find: The information related to the stakeholders of the higher educational institutes are distributed across different websites / departments / different files available under different department or section and they are very hard to retrieve as and when needed.

8. Developing Alumni Network for an University by Using Custom Social Network: To address the problems faced by the universities, Software as a Service (SaaS) was availed from Ning (<http://www.ning.com>) considering its popularity in the custom social network sector and glorified long past history for design and develop a custom social network for alumni management. The software is further customized to bring basic features of an alumni website to the alumni network. In developing the network, a simple personal computer with

internet connectivity is used. In case of software or service, the project used other multiple free as well as paid web 2.0 tools and technologies to achieve its goal. It used Google Domain (<http://domains.google.com>) for domain registration; Ning (<http://www.ning.com>) for hosting; RSS Mixer (<http://www.rssmixer.com>) for aggregating different RSS feed; Feedburner (<http://feedburner.google.com>) to provide Email alert service and to link to Twitter; Twitter (<http://www.twitter.com>) and Facebook (<http://www.facebook.com>) to publicize and Google Analytics (<http://www.analytics.google.com>) to monitor the usage statistics.

The Alumni Network so designed likely to form a single thread through which all the stakeholders of a university will be connected with each others. It will bring the stakeholders of the university together, bestowed them with recent information regarding the university, provides a virtual meeting point to find solutions of the problems related to the university and most importantly, provide them an opportunity to voice their opinions on matters related to the university.

a) Objective of the Alumni Network: The network is designed and developed to consider the following objectives-

- a) To design and develop an online and continuously updated database of all the stakeholders of the university.
- b) To provide a person to person as well as group based communication medium for the stakeholders of the university with web-based tools and techniques.
- c) To provide Current Awareness Service (CADS) / Selective Dissemination of Information (SDI) services to the stakeholders of the university.
- d) To provide necessary support including cash and kind to the individual as well as to the university by its stakeholder.
- e) To generate different kinds of report and directories by using the network.

The university alumni network target to cover people and news from all over the World related to the university only. Contents related to other issues or subjects will not be considered. The site further will deals with English language contents only. To begin with, the Email ids of previous students were collected from the respective departments and later on they were invited to join the alumni network. A few Email ids were also collected from the online database of the applicants of different programmes and they were also invited to join the website. Till the writing of this article, 257 people have already joined the network.

The newly design custom social network of alumni will enable the students, research scholars, faculty members, staff and alumni of the university to register to the website online by filling up some pre-define questions. After entering the details s/he has to wait for approval of his/her membership. After approving the membership, the answers of the questions become his / her profile page over the website, which at the back end, form a database. The profile section of the members' comprises of both private and public data. The private data comprises of the IP address, mobile phone number and Email id which will be accessible only to the concerned member and the administrator of the site whereas name, designation and all such other information will form the public data which will be accessible to one and all. Any member can modify / update the answers of the questions by "Sign In" to the site at any time, as and when modifications are needed. After the approval of the membership to the site, people can post any other relevant information over the site in the form of new blog post, forum post, event, photo and video that again need to be approved by the administrator of the website and communicate with other members via chat, Email, scrap message and comment. The approved content will be delivered automatically to those members who agree to receive such contents and will appear over the Facebook Page and Twitter profile of the network.

9. Conclusion: The Indian Institute of Science (Rank 1 in NIRF-2019), Jadavpur University (Rank 6 in NIRF-2019), Anna University (Rank 7 in NIRF-2019), Manipal Academy of Higher Education (Rank 9 in NIRF-2019) and Savitribai Phule Pune University (Rank 10 in NIRF-2019) managing their alumni by using specifically designed alumni management software. These institutes have gone further of just providing a listing of their alumni with some basic information to an integrated alumni network where the alumni leads to inspiration, provide information, develop collaborative relationship, have scope for lifelong learning, support the parent institute and budding or underprivileged group or students and research scholars both in cash and kind. The basic features of all these alumni sites can be replicated in a custom social networking platform with some added advantage.

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